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Committee Secretary  
Standing Committee on Primary Industries and Resources  
PO Box 6021  
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Parliament House  
Canberra ACT 2600  
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By email

Your reference: Inquiry: Australian Farmers and Climate Change

Thank you for the opportunity of providing a submission on this topic.

My comments relate to the second and third aspects of your terms of reference.

Farming in Australia, as in most modern economies, is heavily dependent on fossil fuels. Not only is equipment used by farmers run on diesel fuel, but many fertilizers and pesticides are derived from oil based products.

Climate change and the increasing costs of fuel pose a major challenge for farming and rural communities. A useful question to ask is what happens with farming when oil hits a price of US\$300 a barrel? How will price rises in these farm inputs, an outcome of a confluence of costs that will arise from climate change and issues associated with Peak Oil, be managed and mitigated?

There is an urgent need for research to be undertaken and accelerated on alternative fuel stocks, and adapting current technologies so that they can more easily use other fuel stocks. At the moment, we transform petroleum based energy into food and fibre, a situation that is unsustainable.

There are also significant opportunities for farmers and farming communities to take advantage of climate change. Traditionally, farmers and farm lobby groups identify themselves as providing food and fibre for the world. There should be two more planks for the farming mantra: as generators of power, and harvesters of carbon. In both cases, there are significant potential opportunities for farmers to be able to increase the range of income streams.

Farmers may be generators of renewable energy, for example solar and wind power, and through generation of power through bioenergy. Dairy farmers, as an example, have to manage large quantities of effluent. This is a potential power source that may be used to reduce on-farm energy costs, and also be sold to other consumers. Likewise, farmers may be able to have solar generators or other technologies that can both substantially expand renewable power generation and be a viable income stream.

There is considerable potential for rural research and development to assist farmers to identify and adapt to such innovation. Identifying policy roadblocks and regulations that act as constraints on the development of innovative power generation is one area. Assisting in developing models so that ideas and applications can be trialled on a small pilot scale would be of considerable assistance.

In passing I would note that there seems to be considerable preference given to government support to large scale power generation. The recent fires in Victoria highlighted the vulnerability of a dependence on large scale energy generation linked by major transmission lines. There was considerable concern that Victoria would be affected by blackouts due to bush fires affecting transmission lines. Smaller, decentralised power systems have some major benefits in increasing resilience and decreasing vulnerability. Farmers may be part of the solutions through on farm power generation.

Finally, while agriculture has not at this stage been included in the draft emissions legislation, it seems that there is a missed opportunity. Farmers may be carbon harvesters, in areas other than forestry. The potential for increases in soil carbon to act to reduce the amount of free carbon is a rich source of potential research and development. I have been following the discussions about pyrolysis and biochar with considerable interest. I argue that the Australian Government could assist the farm sector by being open to the exploration of different techniques in carbon sequestration and harvesting, and note that this again may be a potent additional stream of income which could assist the farm sector to have more resilience in a period of climate change.

Thank you again for the opportunity to comment.

Yours sincerely,

Narelle Martin.